

Doniphan County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

6/26/2017

Using the most recent IMPLAN data available (2015) adjusted for 2017, 16 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Doniphan County economy.¹

These 16 sectors have a total direct output of approximately **\$124.5 million** and support **501.0 jobs** in Doniphan County. Running the model for all 16 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Doniphan County Economy						
Impact Type ²	Employment	% Employment	Total Value Added ³	Total Value Added % of Gross Regional Product ⁴	Output ⁵	Output % of Gross Regional Product
Direct Effect	501.0	14.10%	\$30,638,913	14.05%	\$124,465,522	57.09%
Indirect Effect	108.1	3.04%	\$8,860,265	4.06%	\$16,976,035	7.79%
Induced Effect	49.1	1.38%	\$4,357,789	2.00%	\$7,601,650	3.49%
Total Effect	658.2	18.53%	\$43,856,968	20.12%	\$149,043,207	68.37%

As shown in the above table, agriculture, food, and food processing sectors support **658.2 jobs**, or **18.53%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **\$149.0 million**, roughly **68.37% of the economy**.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 16 agriculture, food, and food processing sectors is approximately **\$43.9 million**, or **20.12% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **20.12% of the total economy**.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:

http://www.implan.com/index.php?option=com_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value added = labor income + indirect business taxes + other property type income.

⁴ GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

⁵ Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the grain farming sector is the top employer with **145.1 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Doniphan County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Grain farming	145.1	\$46,151,517
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	142.8	\$14,685,528
Commercial logging	44.9	\$2,169,749
Landscape and horticultural services	41.0	\$1,159,587
Wholesale trade	35.7	\$7,146,308
Dairy cattle and milk production	32.8	\$11,573,037
Oilseed farming	30.4	\$29,302,617
All other crop farming	25.4	\$1,661,572
Fertilizer mixing	24.5	\$15,268,332
Real estate	11.2	\$1,778,532

The grain farming sector directly contributes approximately **\$46.2 million** to the Doniphan County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Grain farming	145.1	\$46,151,517
Oilseed farming	30.4	\$29,302,617
Fertilizer mixing	24.5	\$15,268,332
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	142.8	\$14,685,528
Dairy cattle and milk production	32.8	\$11,573,037
Wholesale trade	35.7	\$7,146,308
Owner-occupied dwellings	0.0	\$2,897,122
Commercial logging	44.9	\$2,169,749
Truck transportation	11.2	\$1,909,576
Monetary authorities and depository credit intermediation	10.3	\$1,828,919

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Doniphan County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	Total Employment	Total Output
Oilseed farming	30.4	\$29,302,616.12
Grain farming	145.1	\$46,151,515.96
Vegetable and melon farming	0.3	\$68,200.44
Fruit farming	1.6	\$137,868.17
Tree nut farming	0.1	\$13,407.29
Greenhouse, nursery, and floriculture production	5.4	\$743,856.01
All other crop farming	25.4	\$1,661,571.62
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	142.8	\$14,685,527.80
Dairy cattle and milk production	32.8	\$11,573,036.19
Poultry and egg production	0.7	\$546,600.64
Animal production, except cattle and poultry and eggs	2.8	\$317,636.31
Commercial logging	44.9	\$2,169,749.26
Bread and bakery product, except frozen, manufacturing	0.9	\$93,548.60
Sawmills	2.8	\$746,342.36
Fertilizer mixing	24.2	\$15,094,455.72
Landscape and horticultural services	41.0	\$1,159,586.79

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Doniphan County, the retail sector was omitted.